

I CLAIM:

1. A non-virulent, *recA* defective mutant of *Porphyromonas gingivalis*.

2. A pharmaceutical preparation comprising the mutant of *Porphyromonas gingivalis* according to claim 1.

5 3. A method of decreasing the growth rate or reproduction rate of wild-type *Porphyromonas gingivalis* in a mammal, the method comprising administering to the mammal at least one dose of the mutant of *Porphyromonas gingivalis* according to claim 1.

4. The method of claim 3, wherein the mammal is a human.

10 5. The method of claim 3, wherein the administration comprises injecting the mammal with the at least one dose of the non-virulent, *recA* defective mutant of *Porphyromonas gingivalis* via a route selected from the group consisting of a subcutaneous route, an intravenous route and an intramuscular route.

6. The method of claim 3, wherein the dose administered is between about 1×10^3 and 1×10^7 the mutant of *Porphyromonas gingivalis* per kg of body weight of the mammal.

15 7. A method of decreasing the growth rate or reproduction rate of *Porphyromonas gingivalis* in a mammal, the method comprising the step of administering to the mammal at least one dose of a non-virulent, *recA* defective mutant of *Porphyromonas gingivalis*.

8. The method of claim 7, wherein the mammal is a human.
accession number 202109 to the mammal.

20 9. The method of claim 7, wherein the step of administering comprises injecting the mammal with the at least one dose of a non-virulent, *recA* defective mutant of *Porphyromonas gingivalis* via a route selected from the group consisting of a subcutaneous route, an intravenous route and an intramuscular route.

25 10. The method of claim 7, wherein the step of administering comprises injecting the [mutant] mammal with the at least one dose of a non-virulent, *recA* defective mutant of *Porphyromonas gingivalis*, wherein the dose is between about a 1×10^3 and 1×10^7 bacteria per kg of body weight.